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CONTINUATION SHEET

Applicant's arguments filed December 8, 2010 regarding rejection of Claims 1-38 under 35 U.S.C. 103(a) have been fully considered but they are not persuasive.

Regarding Claims 1 and 20, Applicant states "Examiner has not shown any portion of the cited references to disclose or suggest, for example, "...marking packets carrying the Layer-3 control information." Examiner respectfully disagrees. The McDysan reference, at paragraph 0009 recites: "Diffserv is an IP QoS architecture that achieves scalability by conveying an aggregate traffic classification within a DS field (e.g., the IPv4 Type of Service (TOS) byte or IPv6 traffic class byte) of each IP-layer packet header. The first six bits of the DS field encode a Diffserv Code Point (DSCP) that requests a specific class of service or Per Hop Behavior (PHB) for the packet at each node along its path within a Diffserv domain." Examiner further notes that the claimed "control information" is not further defined in the claim language so as to require a structure or feature of said information other than being "Layer-3 control information." As the DSCP disclosed in McDysan controls the QoS applied to a packet (e.g., in paragraphs 0037 and 0042) and further is indicative of an IP QoS (i.e., Layer-3), Examiner submits that the claim limitation "Layer-3 control information" is met by the disclosure of McDysan. Further, while the claim language requires "marking packets carrying the Layer-3 control information," the claim language is silent as to how the packets are marked. Therefore, when given its broadest reasonable interpretation, Examiner submits that the packet marking via a DSCP code point in IP packets in order to distinguish the appropriate treatment for each packet (see paragraphs 0037 and 0042) disclosed in McDysan meets the broadest reasonable interpretation of the claim

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limitation "marking packets carrying the Layer-3 control information." Applicant further states that "Examiner has not alleged teaching as to "...encapsulating the packets at Layer-2 to uniquely identify Layer-2 frames as carrying trusted control information." Examiner respectfully disagrees. Examiner notes that the claim language is silent both to how the packets are encapsulated such that the trusted control information is uniquely identified and as to what constitutes "trusted" traffic; rather, the step of "encapsulating the packets at Layer-2" is claimed to result in "uniquely identify(ing) Layer-2 frames as carrying trusted control information." Oguchi discloses encapsulating an L2TP VPN packet comprising Layer-2 encapsulation (paragraph 0215, Figure 25, wherein a packet containing L2TP is encapsulated with a PPP or Ethernet header). Per MPEP 2143.01: "The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art, and all teachings in the prior art must be considered to the extent that they are in analogous arts." Examiner submits that as McDysan and Oguchi are both directed to the formatting and transmission of VPN traffic, the references are analogous art. As such, Examiner submits that the combination of the Layer-3 control packet marking disclosed in McDysan and the L2TP encapsulation disclosed in Oguchi, whereby the encapsulation identifies the packet as a tunneled (i.e., trusted) packet, reads on the broadest reasonable interpretation of "marking packets carrying the Layer-3 control information" and "...encapsulating the packets at Layer-2 to uniquely identify Layer-2 frames as carrying trusted control information." Applicant further states "it isn't clear what noun or noun phrase the Examiner is using the word "which" to refer back to in alleging "which is known in the art as an implementation of 'Layer-3' in the OSI-7 layer Interconnect Model (i.e., the network layer)."

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Examiner notes that the rejection of Claim 1 states that Internet Protocol is an implementation of Layer-3.

Regarding Claims 2 and 21, Applicant states “DSCP 000 does not disclose or suggest a unique protocol identifier.” Examiner respectfully disagrees. Examiner notes that the claim language solely requires the protocol identifier to be "unique," although the claim language is silent as to what aspect of the claimed "protocol identifier" is "unique." As such, Examiner submits that the DSCP value disclosed in paragraphs 0037 and 0042 of McDysan uniquely identifies how the packet is to be treated (i.e., the values of the DSCP are different than one another (i.e., unique)).

Regarding Claims 4 and 23, Applicant states paragraph 0042 of McDysan “teaches away from “determine when marking of control packets is to be done,” as they teach remarking of all received packets indiscriminately.” Examiner respectfully disagrees. McDysan, at Figure 5 and paragraph 0036, discloses a classifier in the LAN port determining, via by reference to a classifier table indexed by multiple indices (e.g., source port and destination port), to determine an interface for communication and to send values to a packet marker. Further, at paragraphs 0037 and 0042, a determination is made with regard to marking of a packet (e.g., marking a packet when received from an access network). Examiner notes that there is no requirement in the claim language for the claimed “determination” to result in not marking the packet (emphasis added by Examiner); rather, the claim language solely requires the determination of “when marking of control packets is to be done.” As the claim language is non-limiting as to the outcome of the determination, Examiner submits that the packet marking disclosed in McDysan reads on the broadest reasonable interpretation of the claimed "determination." Applicant further

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states "Examiner alleges teaching only as to "...marking of a packet...", not "...marking of control packets..." Examiner respectfully disagrees. As described with regards to Claim 1, the DSCP disclosed in McDysan controls the QoS applied to a packet (e.g., in paragraphs 0037 and 0042), and, therefore, reads on the broadest reasonable interpretation of "marking of control packets." Applicant further states "the cited portions of the cited references do not disclose or suggest "...to determine when marking of control packets is to be done." Examiner respectfully disagrees. As stated above, McDysan, at Figure 5 and paragraph 0036, discloses a classifier in the LAN port determining, via by reference to a classifier table indexed by multiple indices (e.g., source port and destination port), to determine an interface for communication and to send values to a packet marker. Further, at paragraphs 0037 and 0042, a determination is made with regard to marking of a packet (e.g., marking a packet when received from an access network).

Regarding Claims 17 and 36, Applicant states "Examiner parenthetically states "(i.e., performing control encapsulation)" without any explanation or justification" and the disclosure of L2TP tunneling "fails to disclose or suggest "control encapsulation." Examiner respectfully disagrees. Examiner notes that the claimed "control encapsulation" is not further defined in the claim language so as to require a certain format for the encapsulation. As such, Examiner gives the claim language its broadest reasonable interpretation without unnecessarily importing limitations from the specification, and submits that any encapsulation that is directed to control functions reads on the broadest reasonable interpretation of "control encapsulation." Oguchi discloses encapsulating an L2TP VPN packet at Layer 2, wherein the Layer 2 header (i.e., performing control encapsulation) comprising Layer 3 encapsulation (paragraph 0215, Figure 25, wherein a packet containing an IP header). In order to further describe Figure 25, Examiner

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turns to paragraphs 0074, which states: "...application data is transmitted through an L2TP tunnel, an L2TP header and a PPP header are added thereto associated with an encapsulation. Moreover, when the edge router transmits the encapsulated packet to the provider network, a lower layer media PPP/Ether header...are also added." As shown by the above passage, the encapsulation of the data disclosed in Oguchi is performed in order to control an aspect of how the packet is processed (e.g., establishing a L2TP tunnel and obtaining a session ID as disclosed in paragraph 0164 of Oguchi).

Regarding Claims 3 and 22, Applicant states "Examiner has not shown how an alleged motivation of "a need to allow a node in a communication network to collect traffic information to thereby achieve load sharing depending on the conditions of the traffic" would have motivated one of ordinary skill in the art to combine the teachings of Nakamichi, directed to a device and method for collecting traffic information, with the teachings of McDysan, directed to a VPN-aware CPE edge router, and the teachings of Oguchi, directed to the establishment of virtual links between all of the relaying apparatuses belonging to a multicast address group, to allegedly yield marking packets carrying Layer- 3 control information using a link-local MPLS label and encapsulating the packets at Layer-2 to uniquely identify Layer-2 frames as carrying trusted control information." Examiner respectfully disagrees. Examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S.

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398, 82 USPQ2d 1385 (2007). In the instant case, Nakamichi explicitly states a need in the art to avoid congestion in the internet and collect information so that a router is informed of information pertaining to a busy condition of a route (paragraphs 0010 and 0011). Further, Nakamichi states that the invention disclosed therein "collect(s) traffic information to thereby achieve load sharing depending on the conditions of the traffic" (paragraph 0012). Therefore, Examiner notes that the references themselves provide a motivation to combine the disclosed teachings. Applicant further states "the cited portions of the cited references do not disclose or suggest "...wherein the step of marking further comprises: marking the packets using a link-local MPLS label." However, Examiner notes that Applicant does not particularly point out how the claim language is patentably distinguishable from the cited prior art.

Regarding Claims 5 and 24, Applicant states "the cited portion of the Yu reference does not teach or suggest "applying interface groups to determine when marking of control packets is to be done," comprising "applying interface groups to packet communications within a particular interface group," as Applicant submits instructing devices to assume mastership of a virtual IP address teaches away from "applying interface groups to determine when marking of control packets is to be done." Examiner respectfully disagrees. Claims 5 and 24 require "applying interface groups to packet communications within a particular interface group." However, Examiner notes that the claim language is not further defined so as to further limit the step of applying interface groups or the features of a particular interface group. Per MPEP 2106: "USPTO personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim should not be

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read into the claim. *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369, 67 USPQ2d 1947, 1950 (Fed. Cir. 2003) (claims must be interpreted “in view of the specification” without importing limitations from the specification into the claims unnecessarily). In *re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). See also In *re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).” Examiner has given said claim language its broadest reasonable interpretation in view of the specification to comprise determination of an interface for communications. Accordingly, Yu discloses assigning interfaces to communicate within and between various types of networks (see Figures 1 and 4 and paragraphs 0022 and 0025). Further regarding Claims 5 and 24, Yu discloses packet communications between interfaces ‘a’ and ‘d’ of Network Device A in Figure 1 (at paragraph 0034, wherein tunnel interface ‘d’ is assigned to physical interface ‘a’ within an interface group). Further, Examiner notes that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See In *re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In *re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Examiner submits that the combination of the interface group determination disclosed in Yu, the marking of a control packet based on interface (paragraph 0036) disclosed in McDysan, and the Layer-2 encapsulation disclosed in Oguchi discloses the claim limitation “applying interface groups to packet communications within a particular interface group.” Further, Applicant states that “Examiner has not shown how an alleged motivation of “to withstand failures of network device components, without triggering unnecessary failover in a network device” would have motivated one of ordinary skill in the art to combine the teachings of Yu, directed to a method and apparatus for defining failover events in a network device, with the teachings of McDysan,

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directed to a VPN-aware CPE edge router, and the teachings of Oguchi, directed to the establishment of virtual links between all of the relaying apparatuses belonging to a multicast address group, to allegedly yield applying interface groups to packet communications within a particular interface group to determine when marking of control packets is to be done, marking packets carrying Layer-3 control information, and encapsulating the packets at Layer-2 to uniquely identify Layer-2 frames as carrying trusted control information.” Examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In the instant case, Yu explicitly states a need in the art to withstand failover events in a network by defining which events should and should not trigger a failover in the network device (see paragraphs 0012-0013 of Yu). Therefore, Examiner notes that the references themselves provide a motivation to combine the disclosed teachings. Further, Applicant states “the cited portions of the cited references do not disclose or suggest “wherein the step of applying interface groups further comprises the step of: applying interface groups to packet communications within a particular interface group” and “Figure 1 does not appear to disclose “interface group defined between interfaces ‘a’ and ‘d’ within network device A.” However, Examiner notes that Applicant solely alleges that the claim language is not disclosed or suggested in the prior art and does not particular point how the claims are patentably distinguishable from the prior art.

Regarding Claims 6 and 25, Applicant states that “Examiner parenthetically characterizes “the Internet” as teaching “(i.e., backbone),” without citing any reference or providing any justification or explanation as to such characterization.” Examiner respectfully disagrees. Examiner notes that the claim term “backbone interface group” is not further defined in the claim language so as to require any specific characteristics of the interface group. As such, Examiner gives the claim language a broadest reasonable interpretation of interfaces connected via a backbone network. Yu discloses setting up a tunnel between interface ‘d’ of Network Device A and interface ‘e’ of Network Device B, which are remotely located from one another, via the Internet (paragraph 0033). As such, Examiner submits that the “Internet” disclosed in Yu reads on the broadest reasonable interpretation of the claimed “backbone.” Applicant further states “the block diagram of Figure 4 of the Yu et al. reference does not disclose or suggest, as an example, “...the step of: applying interface groups to packet communications within a backbone interface group.” Examiner respectfully disagrees. Figure 4 of Yu discloses setting up a static tunnel (i.e., “Static Tunnel A”) across the Internet (i.e., backbone) between two network devices. Given its broadest reasonable interpretation, the claimed “backbone interface group” limitation is met by interface ‘d’, which connects Network Device A to the tunnel over the Internet.

Regarding Claims 7 and 26, Applicant states “Examiner does not appear to allege teaching as to “applying interface groups to packet communications within a customer-specific interface group.” Examiner notes that the claim term “customer-specific interface group” is not further defined in the claim language so as to require any specific characteristics of the interface group. As such, Examiner gives the claim language a broadest reasonable interpretation of

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interfaces connecting to a customer. As stated in the Office Action mailed September 8, 2010, Yu discloses communications with assigning interface 'a' to interconnect with a Host PC (i.e., applying interface groups to packet communications within customer-specific interface group given its broadest reasonable interpretation) in Figure 4. Applicant further states the cited portions of the cited references do not disclose or suggest "wherein the step of applying interface groups to packet communications within a particular interface group further comprises the step of: applying interface groups to packet communications within a customer-specific interface group." However, Examiner notes that Applicant solely alleges that the claim language is not disclosed or suggested in the prior art and does not particular point how the claims are patentably distinguishable from the prior art.

Regarding Claims 8 and 27, Applicant states that "Figure 4 of the Yu reference does not disclose or suggest "communications via a static tunnel between Network Device A and Network Device D (i.e., peer devices given its broadest reasonable interpretation) via interface 'a' on Network Device A," as alleged by Examiner. Examiner respectfully disagrees. Figure 4 clearly shows two network devices (Network Device A and Network Device D) connected to one another via a static tunnel. Setting up the static tunnel shown in Figure 4 is described further in paragraph 0046. Examiner notes that the claim term "peer interface group" is not further defined in the claim language so as to require any specific characteristics of the interface group. As such, Examiner gives the claim language a broadest reasonable interpretation of interfaces connecting to peer devices. Given its broadest reasonable interpretation, the claimed "peer interface group" limitation is met by the disclosed interface assignment (i.e., interface 'd') used in order to communicate between like devices (i.e., Network Device A and Network Device D).

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Applicant further states the cited portions of the cited references do not disclose or suggest “wherein the step of applying interface groups to packet communications within a particular interface group further comprises the step of: applying interface groups to packet communications within a peer interface group.” However, Examiner notes that Applicant solely alleges that the claim language is not disclosed or suggested in the prior art and does not particular point how the claims are patentably distinguishable from the prior art.

Regarding Claims 9 and 28, Applicant states “the Yu reference appears to teach away from the Examiner’s assertion that “Examiner has given the claim language “applying interface groups” its broadest reasonable interpretation in view of the specification to comprise determination of an interface for communications” and “one of ordinary skill in the art at the time the invention was made, in view of the Yu, reference, would not have understood “...define an interface group...” to merely mean "determination of an interface for communications, as alleged by Examiner." Examiner notes that Applicant specification broadly describes interface groups at paragraph 0026: “The second is to apply a new concept of interface groups, whereby a router can determine whether a packet should be marked or not.” However, the step of applying interface groups is not discussed in Applicant’s specification and not further defined in the claim language. Therefore, absent any definition of the term in the specification, Examiner submits that a broadest reasonable interpretation of the claim term “applying interface groups” to reasonably encompass any interpretation of the plain meaning of “applying interface groups,” such as determining the interfaces assigned to particular interface types disclosed in Yu. Further, Examiner notes that Applicant solely alleges that the claim language (i.e., the step of applying

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interface groups) is not disclosed or suggested in the prior art and does not particular point how the claims are patentably distinguishable from the prior art.

Regarding Claims 10 and 29, Applicant states that “Figure 4 of the Yu reference does not disclose “applying interface groups to packet communications between backbone and customer-specific groups (Figure 4, connections between backbone (e.g., in Network Device A between interfaces ‘a’ and ‘d’ and customer networks (e.g., between Network Device A at interface ‘a’ and Host PC 12).” Applicant further states that “Yu teaches away from “applying interface groups” to connections between backbone....and customer networks...as Applicant submits such an alleged “applying interface groups” would appear to render inoperable the “tunnel failover...without running a dynamic routing protocol” described in paragraph [0034] of the Yu reference.” However, Examiner notes that Applicant has provided no evidence that the disclosure of defining interfaces between a backbone network and a customer network, such as that disclosed in Yu, would render a failover inoperable. Further, Examiner notes that Applicant has not described how an interpretation of the claim term “applying interface groups,” which is not defined in the specification as described above, would lead to such a conclusion. Further, Applicant states that “the cited portions of the cited references do not disclose wherein the step of applying interface groups to packet communications between interface groups further comprises the step of: applying interface groups to packet communications backbone and customer-specific interface groups.” However, Examiner notes that Applicant solely alleges that the claim language (i.e., the step of applying interface groups) is not disclosed or suggested in the prior art and does not particular point how the claims are patentably distinguishable from the prior art.

Regarding Claims 11 and 30, Applicant states that “Figure 4 of the Yu reference does not disclose “applying interface groups to packet communications between customer-specific and peer interface groups (Figure 4, connections between peer (e.g., between Network Device A and Network Device D) and customer networks (e.g., between Network Device A at interface ‘a’ and Host PC 12).” Applicant further states that “Yu teaches away from “applying interface groups” to connections between peer...and customer networks...as Applicant submits such an alleged “applying interface groups” would appear to render inoperable the “tunnel failover...without running a dynamic routing protocol” described in paragraph [0034] of the Yu reference.” However, Examiner notes that Applicant has provided no evidence that the disclosure of defining interfaces between a backbone network and a customer network, such as that disclosed in Yu, would render a failover inoperable. Further, Examiner notes that Applicant has not described how an interpretation of the claim term “applying interface groups,” which is not defined in the specification as described above, would lead to such a conclusion. Further, Applicant states that “the cited portions of the cited references do not disclose wherein the step of applying interface groups to packet communications between interface groups further comprises the step of: applying interface groups to packet communications customer-specific and peer interface groups.” However, Examiner notes that Applicant solely alleges that the claim language (i.e., the step of applying interface groups) is not disclosed or suggested in the prior art and does not particular point how the claims are patentably distinguishable from the prior art.

Regarding Claims 12 and 31, Applicant states that “Examiner parenthetically characterizes “the Internet” as teaching “(i.e., backbone),” without citing any reference or

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providing any justification or explanation as to such characterization.” Examiner respectfully disagrees. Examiner notes that the claim term “backbone interface group” is not further defined in the claim language so as to require any specific characteristics of the interface group. As such, Examiner gives the claim language a broadest reasonable interpretation of interfaces connected via a backbone network. Yu discloses setting up a tunnel between interface ‘d’ of Network Device A and interface ‘e’ of Network Device B, which are remotely located from one another, via the Internet (paragraph 0033). As such, Examiner submits that the “Internet” disclosed in Yu reads on the broadest reasonable interpretation of the claimed “backbone” and that the interface ‘d’ in Network Device A belongs to a “backbone interface group.” Applicant further states that citing Network Device A between interfaces ‘a’ and ‘d’ as “teaching a “backbone” is “inconsistent and contradictory.” Examiner respectfully disagrees. Figure 4 of Yu shows that Interface 'd' of Network Device A is connected to the Internet, which Examiner has established as teaching “backbone.” Therefore, the disclosure of applying interface groups to packet communications between peer interface groups (e.g., between Network Device A and Network Device D) and backbone (e.g., in Network Device A between interfaces ‘a’ (to a LAN) and ‘d’ (to the Internet)) reads on the broadest interpretation of the claimed “applying interface groups between backbone and peer interface groups.” Further, Applicant states that “the cited portions of the cited references do not disclose wherein the step of applying interface groups to packet communications between interface groups further comprises the step of: applying interface groups to packet communications backbone and peer interface groups.” However, Examiner notes that Applicant solely alleges that the claim language (i.e., the step of applying

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interface groups) is not disclosed or suggested in the prior art and does not particular point how the claims are patentably distinguishable from the prior art.

Regarding Claims 13 and 32, Applicant states “Examiner appears to characterize the teachings of Holden in a manner that teaches away from the subject matter of claims 13 and 32.” Applicant further states “claims 13 and 32 depend indirectly from claims 1 and 20, which recite “marking packets carrying the Layer-3 control information,” while the Examiner alleges teaching as to marking “an ICMP Echo Reply.” Examiner respectfully disagrees. Examiner notes that the claim language in claims 13 and 32 requires “applying interface groups to communication of ICMP packets.” While McDysan is relied on disclose applying interface groups to determine when marking of control packets is to be done (Figure 5 and paragraph 0036, wherein the classifier in the LAN port determines by reference to a classifier table indexed by multiple indices, such as source port and destination port, to determine an interface for communication and to send values to a packet marker), as claimed in parent claims 4 and 23, Holden discloses a secure network interface unit (SNIU) that marks the protocol and type fields to indicate an ICMP Echo Reply, signs the packet, and sends through an interface (column 20, line 66 - column 21, line 10). Per MPEP 2143.01: “The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art, and all teachings in the prior art must be considered to the extent that they are in analogous arts.” As such, Examiner submits that the combination of the packet marking based on source and destination port identifiers disclosed in McDysan, the encapsulation disclosed in Oguchi, and the ICMP Echo packet processing disclosed in Holden discloses the claim limitation “applying interface groups to communication of ICMP packets.”

Regarding Claims 14 and 33, Applicant states "assigning predetermined port numbers to LSP ping messages" fails to disclose or suggest applying interface groups to determine when marking of control packets is to be done, wherein applying interface groups to determine when marking of control packets is to be done comprises applying interface groups to communication of ping packets, and marking packets carrying Layer-3 control information, as "assigning predetermined port numbers to LSP ping messages" does not teach or suggest "to determine when marking of control packets is to be done." Examiner notes that McDysan is relied on disclose applying interface groups to determine when marking of control packets is to be done (Figure 5 and paragraph 0036, wherein the classifier in the LAN port determines by reference to a classifier table indexed by multiple indices, such as source port and destination port, to determine an interface for communication and to send values to a packet marker), as claimed in parent claims 4 and 23. However, Examiner notes that Applicant solely alleges that the claim language (i.e., "applying interface groups to ping packets") is not disclosed or suggested in the prior art and does not particular point how the claims are patentably distinguishable from the prior art.

Regarding Claims 15 and 34, Applicant states "assignment of traceroute packets to a virtual router address indicative of a loopback interface" fails to disclose or suggest applying interface groups to determine when marking of control packets is to be done, wherein applying interface groups to determine when marking of control packets is to be done comprises applying interface groups to communication of traceroute packets, and marking packets carrying Layer-3 control information, as "assignment of traceroute packets to a virtual router address indicative of a loopback interface" does not teach or suggest "to determine when marking of control packets is

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to be done.” Examiner notes that McDysan is relied on disclose applying interface groups to determine when marking of control packets is to be done (Figure 5 and paragraph 0036, wherein the classifier in the LAN port determines by reference to a classifier table indexed by multiple indices, such as source port and destination port, to determine an interface for communication and to send values to a packet marker), as claimed in parent claims 4 and 23. However, Examiner notes that Applicant solely alleges that the claim language (i.e., “applying interface groups to traceroute packets”) is not disclosed or suggested in the prior art and does not particular point how the claims are patentably distinguishable from the prior art.

Regarding Claims 16 and 35, Applicant states "setting up a tunnel interface with a NOC (paragraph 0136) and communicating packets, including control information, with the NOC via the tunnel (paragraphs 0141- 0143)" fails to disclose or suggest applying interface groups to determine when marking of control packets is to be done, wherein applying interface groups to determine when marking of control packets is to be done comprises applying interface groups to communication of packets from Network Operations Center (NOC) hosts, and marking packets carrying Layer-3 control information, as "setting up a tunnel interface with a NOC (paragraph 0136) and communicating packets, including control information, with the NOC via the tunnel (paragraphs 0141-0143)" does not teach or suggest "to determine when marking of control packets is to be done." Applicant further states "setting up a tunnel interface with a NOC" does not disclose or suggest "applying interface groups to communication of packets from Network Operations Center (NOC) hosts." However, Examiner notes that Applicant solely alleges that the claim language (i.e., “applying interface groups to communication of packets from NOC

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hosts") is not disclosed or suggested in the prior art and does not particular point how the claims are patentably distinguishable from the prior art.

Regarding Claims 18 and 37, Applicant states "the Examiner does not appear to allege any teaching or suggestion as to, for example, "unmarked control packets." Rather, Applicant notes, with respect to claims 1 and 20, from which claims 18 and 37 depend, the Examiner alleges "...McDysan discloses marking packets via a DSCP code point in IP packet " Thus, Applicant submits the combination of references cited by the Examiner appear to teach away from "unmarked control packets." Moreover, Applicant submits the "cells" of Johansson fail to disclose or suggest "unmarked control packets." Applicant states that the cited portions of the cited references do not disclose "control packets." Examiner respectfully disagrees. The claim language "control packets" is not further defined in the claim language so as to further limit the content or structure of the claimed "control packet." As such, Examiner has given the claim term its broadest reasonable interpretation without unnecessarily importing limitations from the specification and interpreted "control packet" to comprise any messaging related to control of communications (e.g., setup, teardown, parameter management, etc.). Further, per MPEP 2143.01: "The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art, and all teachings in the prior art must be considered to the extent that they are in analogous arts." The McDysan, Oguchi, and Johansson references are directed to processing data packets and are therefore in analogous arts." While McDysan discloses processing control information in a network (paragraphs 0037 and 0042), the combination of McDysan and Oguchi does not disclose processing the control packets at a line rate. In the same field of endeavor, Figure 4a, step 410 of Johansson "determines when a

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predetermined number Input RateLimit of Cells are received" (column 10, lines 45-47), wherein the cells contain basic ATM functions such as VPI/VCI translation and payload type indicator operations (i.e., the cells are unmarked). As such, Johansson provides a general teaching of a rate-limited queue receiving unmarked control packets.

Regarding Claims 19 and 38, Applicant states "the cited portions of the cited references do not disclose or suggest "receiving the packets as received packets; and processing the received packets at a line rate." While the Examiner cites "(paragraph 0050)" of the Hussey reference, Applicant submits "(paragraph 0050)" of the Hussey reference states, in part, "...receives a packet data stream via the communication network 110 at a line rate " Applicant submits such teaching does not disclose or suggest "receiving the packets as received packets" and "processing the received packets at a line rate."" However, Examiner notes that Applicant solely alleges that the claim language (i.e., "receiving the packets as received packets" and "processing the received packets at a line rate") is not disclosed or suggested in the prior art and does not particular point how the claims are patentably distinguishable from the prior art. Applicant states "even if an attempt were made to combine the teachings of the Hussey reference and the McDysan reference, such an attempted combination would not yield the subject matter of Claims 19 and 38." Per MPEP 2143.01: "The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art, and all teachings in the prior art must be considered to the extent that they are in analogous arts." The McDysan, Oguchi, and Hussey references are directed to processing data packets and are therefore in analogous arts. Further, Hussey discloses a processor pool aggregation technique wherein a communication device "receives a packet data stream via the communication

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network...at a line rate that might otherwise overwhelm the processing capabilities of the NIC...and result in dropped packets and reduced quality of service" (paragraph 0050).

For the reasons stated above, rejection of Claims 1-38 under 35 U.S.C. 103(a) is maintained.